CLAIMS

We claim:

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1. A method for testing a magnetoresistive sensor for polarity reversal, comprising:

writing a test pattern on a magnetic disk;

using a magnetoresistive sensor on a slider to read a first readback signal from the test pattern;

determining the polarity of the first readback signal; creating a protrusion on the magnetic disk;

operating the slider over the protrusion for a preset period of time;

using the magnetoresistive sensor to read a second readback signal from the test pattern;

determining the polarity of the second readback signal; and,

comparing the polarity of the first readback signal to the polarity of the second readback signal to determine if a change in polarity has occurred.

- 2. A method as in claim 1 wherein the protrusion is created by loading the slider on the magnetic disk while the magnetic disk is rotating.
- 3. A method as in claim 1 wherein the protrusion is created by sputtering material onto the magnetic disk.

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- 4. A method as in claim 1 wherein the protrusion is created by gouging the magnetic disk.
- 5. A method as in claim 1 wherein the protrusion is created by locally heating the magnetic disk with a laser.
- 6. A method as in claim 1 wherein the test pattern on the disk includes a group of written transitions followed by a space with no transitions.
- 7. A method for testing a magnetoresistive sensor on a slider for polarity reversal, comprising:

creating a protrusion on the magnetic disk;

writing an asymmetrical pattern on a magnetic disk;

using the magnetoresistive sensor to read a first

readback signal from the test pattern;

determining the polarity of the first readback signal; providing a perturbation to the magnetoresistive sensor with the protrusion;

using the magnetoresistive sensor to read a second readback signal from the test pattern;

determining the polarity of the second readback signal; and,

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comparing the polarity of the first readback signal to the polarity of the second readback signal to determine if a change in polarity has occurred.

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- 8. A method as in claim 7 wherein the protrusion is created by loading the slider onto the magnetic disk while the magnetic disk is rotating.
- 9. A method as in claim 7 wherein the protrusion is created by sputtering material onto the magnetic disk.
- 10. A method as in claim 7 wherein the protrusion is created by gouging the magnetic disk.
- 11. A method as in claim 7 wherein the test pattern includes a group of written transitions followed by a space with no transitions.
- 12. A method as in claim 7 wherein the protrusion is created by locally heating the magnetic disk with a laser.

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